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ABSTRACT

To help assess the writing ability of college freshmen studying English as a second language (ESL), this study was undertaken to identify particular structures of subordination associated with writing maturity and to develop a diagnostic instrument to test student control of those structures. Following sentence-generating principles of transformational grammar, the developed examination, entitled Test of Ability to Subordinate (TAS), offers test items in the form of pairs or triads of kernel or "core" sentences which students are asked to combine into one sentence by filling in missing words in a given sentence frame. The 50-item, limited-response examination was administered to a number of ESL college freshmen along with the Michigan Test of English Language Proficiency and a composition exercise. The TAS correlated .86 with scores on the Michigan Test and .74 with composition scores. The study suggests that: (1) certain structures of subordination appear to be critical elements of overall writing ability; (2) it is possible to construct valid objective tests which ask students to actively engage in writing sentences as well as in a cognitive process required in free writing; and (3) the ability to produce certain transformations through sentence combining is indicative of the ability to perform these transformations during the normal writing process. (Author)

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ASSESSING WRITING ABILITY OF ESL COLLEGE FRESHMEN

by David M. Davidson

College instructors of English as a Second Language have come to recognize the need for more accurate and efficient methods of assessing writing ability of entering ESL students. This need has been prompted by the rising number of students with English as a second language attending college, the changing circumstances and demands of educational institutions, and the increased understanding of language acquisition and the components of writing ability fostered by recent research.

The expansion of college-level ESL programs throughout the country attests to the fact that the number of students whose native language is not English applying for admission to American colleges has increased significantly in recent years. This increase has been due in part to the general increase in college attendance throughout the country and to the pre-recession expansion of facilities not only to meet the general need but to accommodate those with particular requirements, such as disadvantaged students. Large numbers of immigrants and students on visa have been seeking higher education in the United States. Native-born Americans with non-English language backgrounds are not only seeking admission to colleges but are being supported in their efforts by scholarships and special programs. Open Admissions in the City University of New York has encouraged many such students to pursue higher education.

Although non-English speaking students entering college require training in all language skills, writing is of major importance at this level of education.¹ With large classrooms and a less personalized approach to teaching, the student is most often evaluated through written means such as research papers and essay examinations. And while success in college is highly dependent on a student's writing skills, non-English speaking students show the least proficiency in this area.²

Time is another important consideration in working with such students. Particularly in the community colleges, but elsewhere as well, most of these students have limited financial resources and cannot afford the luxury of an extended language program. Many are part-time students with full- or part-time jobs, and others are attending school on limited scholarships or other forms of financial aid. Increasingly, more mature people with family obligations are attending college. The institution itself, faced with financial difficulty, has less money available for "special" and non-credit programs. The pressure on the instructor from both student and institution is to have the student enter the academic mainstream as quickly as possible. The move towards instructor accountability is one result, with such methods as the implementation of competency-based objectives being employed.

The need then is to train students as quickly and efficiently as possible in the writing skills necessary for successful college study. Recognition of criteria for acceptable college-level writing and proper placement of students would greatly assist the teacher in this effort.

Literature concerned with the development of writing ability is virtually unanimous in identifying the ability to subordinate as highly significant in mature writing. (Major studies in this area are cited in the bibliography.) As children grow, their command of syntactic structures increases, along with the increasing awareness of their environment and its demands. With this growth comes the ability to anticipate responses, make judgments about relationships, and understand and convey more specific meaning. Younger children rely heavily on coordination to convey their ideas, but as they grow they make greater use of structures of subordination. This development is evidenced in children's writing; and a number of researchers have shown correlations between the frequency of use of certain structures and the age of the writers. The "maturity" of adult writing has also been assessed, with researchers drawing the conclusion that the "mature" writer can be identified by his use of certain structures of subordination in particular ways.

This research suggests that a valid and reliable test of ability to subordinate in writing could be a valuable tool in helping a rising non-native speaking population within an increasing demanding college environment.

Current tests of writing ability do not adequately serve diagnostic and placement needs. They are of two types: (1) the free composition, in which the student is asked to write a minimum number of words on a particular topic in a given time period with minimal guidance in terms of organization, structure, or vocabulary; and (2) the short answer examination, in which the student is asked, for example, to make choices for sentence completion or to detect non-standard usages.

The free composition examination suffers from several defects in normal use, even for native speakers. Permitting students to write freely allows them to use only those structures and lexicon they are familiar with and to avoid others. Such examinations are often graded on the basis of loosely defined criteria with lack of consistency from one reader to another;³ and grading is time-consuming and often impractical in large numbers. Furthermore, an unstructured examination of this type does not isolate specific writing problems but can only give a general view of the student's deficiencies.

Not only is the free composition examination inadequate for native speakers, it is particularly unfair to non-native speakers, who often lack the fluency to write adequately under time pressure. Having to marshal ideas about a given topic and establish the organization and structure necessary to convey them requires considerably more time than normally allotted in this type of test.⁴ Faced with the normal writing demands of college courses--term papers and one-to-two-hour essay examinations on material previously read and discussed, many non-native speakers will do considerably better than their performance on a time-limited free composition would indicate.

The major weakness of short-answer examinations is that they require recognition of standard, non-English, and even non-standard usages without demanding production of the written word. Even if a student can recognize a non-English or non-standard usage, there is no measure of his ability to correctly substitute for it.⁵

A major improvement on both types of examinations--free composition and multiple choice--would be an instrument that:

- (1) measures discrete, significant grammatical elements of writing ability for diagnostic as well as placement purposes;
- (2) requires students to actively employ the language elements being tested for;
- (3) can be easily and consistently graded; and
- (4) allows sufficient time for respondents to indicate their ability.

I undertook to develop such an instrument for the testing and placement of college-level non-native speakers of English on the basis of writing ability as determined by their control of significant structures of subordination.

In order to identify the structures of subordination most indicative of acceptable college-level writing, I surveyed recent issues of journals devoted to the teaching or study of the English language, books and manuals on the theory and practice of English language instruction, instructional materials designed for native as well as non-native students, and relevant unpublished dissertations. From this literature I identified the following structures as important indicators of writing maturity:

1. prenominal adjectives;
2. adverbs;
3. prepositional phrases, particularly of time and manner;
4. adverbial clauses, particularly when used before the main clause, with clauses of cause and condition more sophisticated than those of time and place;
5. relative clauses, especially as non-restrictive subject modifiers embedded in the main clause;

6. noun clauses, particularly in positions other than direct objects, although their use as subjects is rare even among high school students;

7. participial phrases;

8. gerund phrases;

9. infinitive phrases;

10. absolute phrases, although rarely used even by twelfth graders;

11. appositive constructions, also rarely used.

After identifying these structures, I surveyed forty recently published textbooks for college students geared primarily or entirely to the writing process. (See appended list.) (According to J. F. Green, "Composition textbooks for college freshmen are a reasonable guide to those features of expository writing accepted as important by educated native speakers."⁶) In addition, I randomly selected one hundred expository compositions written by entering freshmen--all native speakers of English--at my own institution, Bronx Community College. Each composition was on the same topic and was rated as "college level" by at least two English Department instructors. These compositions were analyzed for frequency of use of the various structures of subordination for practical determination of which structures are found most commonly in college-level expository writing.

Selection of Structures for Testing

Literature indicating the importance of ability to use prenominal adjectives was supported by my survey of the texts and analysis of the writing samples. The texts stressed use of descriptive adjectives, both alone and in combination; and they

were the most widely used of the structures examined in the writing samples. Possessive adjectives, cited in eight of the texts, were used by a majority of the student writers.

Both the texts and the writing samples showed the importance of adverbs, particularly of degree, time, and manner.

Prepositional phrases were used by all the students and cited by more than two-thirds of the texts. Regarded as most significant were their use as adverbs of place, time, and manner; as descriptive and locative adjectives; and as verb objects.

More of the texts treated adverbial clauses than any other structure under consideration, with emphasis on clauses of time, condition, and cause. Student writing reflected this emphasis.

Adjective clauses were covered by 30 books and used by 84 of the students.

Noun clauses as verb objects were discussed by more than half the texts and found in more than 70% of the writing samples.

Participial phrases were covered in 32 of the texts and used by 56 students, primarily adjectivally.

Half the texts treated gerund phrases, primarily as objects of prepositions and verbs. Use of the former was noted in 40% of the writing samples.

Infinitive phrases functioning as verb objects, adverbs, and adjectives were noted in the texts and substantially represented in the writing samples.

Two of the main categories of structures cited in the literature--absolute and appositive phrases--were the least cited in the texts and were hardly used by the native-born freshmen sampled.

All of the other structures cited in the literature were incorporated into the developed test, entitled Test of Ability to Subordinate (TAS). Particular forms to be used were determined by a combination of frequency of text citation, actual use in the writing samples, and adaptability to the test format.

The structures incorporated into the test were:

1. Prenominal Adjectives
 - a. descriptive adjectives
 - b. possessive adjectives
 - c. possessive nouns
 - d. two-word combinations
 - (1) possessive adjective-descriptive
 - (2) descriptive-descriptive
2. Adverbs
 - a. manner
 - b. degree
 - c. time and frequency
3. Prepositional Phrases
 - a. adverbial--place
 - b. adverbial--manner
 - c. adverbial--time
 - d. adjectival--genitive
 - e. verb object
4. Relative clauses
5. Noun Clauses (verb object)
6. Adverbial Clauses
 - a. time
 - b. condition
 - c. cause
7. Participial Phrases (adjectival)
8. Gerund Phrases (object of preposition)
9. Infinitive Phrases
 - a. verb object
 - b. adverbial
 - c. adjectival

TABLE 1
STRUCTURES OF SUBORDINATION IN SURVEYED
TEXTS AND WRITING SAMPLES

Structure	No. of Texts Cited in	No. of Writing Samples Used in	Instances of Use in Writing Samples
Prenominal Adjectives	30	100	1313
Descriptive	28	100	955
Possessive Adjectives	8	76	148
Possessive Nouns	7	44	52
2-word Combinations	12	40	56
Adverbs	24	96	315
Manner	23	34	54
Time, Frequency	12	49	70
Degree	11	56	90
Prepositional Phrases	27	100	793
Adverbial-Place	24	52	96
Adverbial-Time	13	40	44
Adverbial-Manner	11	52	77
Modifying Adjective	4	32	38
Adjectival-Descriptive, Genitive	16	84	171
Adjectival-Place	10	64	109
Object of Verb	10	40	58
Adjective Clauses	30	84	218
Noun Clauses	23	82	207
Object of Verb	21	72	146
Subject	12	9	9
Adverbial Clauses	37	85	186
Time	34	33	39
Condition	27	35	52
Cause	25	23	31
Contrast	16	10	15
Participial Phrases	32	56	96
Adjectival	26	43	50
Adverbial	13	17	17

TABLE 1--Continued

Structure	No. of Texts Cited in	No. of Writing Samples Used in	Instances of Use in Writing Samples
Gerund Phrases	20	58	97
Object of Verb	15	11	11
Object of Preposition	13	40	72
Infinitive Phrases	24	98	417
Object of Verb	14	68	127
Adverbial	12	69	166
Adjectival	8	57	86
Absolute Phrases	11	2	2
Appositive Phrases	12	5	6

Test Format

The test items were written in a sentence-combining format following the sentence-generating principles of transformational grammar. Students were required to take two or three "core" sentences (for purposes of clarity, in some cases sentences more elaborate than "kernel" sentences were used) and combine them into one sentence within a given frame which required formulation of a particular structure of subordination. Core sentences were designed to test students' ability to perform a variety of transformational procedures in the production of the desired structures. (See table 2.)

Several factors were considered in determining the number of items to be included in the test. Since the examination was intended primarily for diagnostic purposes, a sufficient number of items were necessary to determine students' command of the structures being tested.

For several reasons, time was an important consideration. For use as a placement test, either centrally to large groups of students or in a classroom during a regular class session, the examination, including administration time, could take no more than an hour to be practical. Since this was designed as a power test, there could be no more items than could be comfortably handled by almost all of the students in that time. The fact that this was a completion test, involving actual writing rather than multiple choice selection, limited the number of items that could be used.

Extensive pretesting with students of widely varying language abilities showed that 50 items could be completed by more than 98% of the students within 50 minutes. It was also felt that the nine

TABLE 2
EXAMPLES OF TEST ITEMS

1. Prenominal adjective from noun phrase.
a. The doctor looked at the leg. b. The leg had an infection.
The doctor looked at the infected leg.
2. Prenominal adjective from prepositional phrase.
a. They rented a boat. b. The boat was for fishing.
They rented a fishing boat.
3. Adverb from adjective.
a. They were satisfied. b. Their satisfaction was complete.
They were completely satisfied.
4. Genitive prepositional phrase from possessive statement.
a. The patient has a condition. b. His condition is poor.
The condition of the patient is poor.
5. Adverbial clause of time from full subject-predicate structure.
a. The telephone rang. b. They were watching television.
The telephone rang while they were watching television.
6. Adverbial clause of cause from subject-predicate structure.
a. He does not smoke. b. Smoking makes him sick.
He does not smoke because smoking makes him sick.
7. Relative clause from subject-predicate construction.
a. This is the building. b. It burned down last week.
This is the building that/which burned down last week.
8. Noun clause from statement.
a. They were sorry. b. They said so.
They said (that) they were sorry.
9. Noun clause from yes-no question.
a. Did the train arrive? b. We don't know.
We don't know if the train arrived.
10. Noun clause from information question.
a. Why is he always complaining? b. We do not understand.
We do not understand why he is always complaining.

TABLE 2--Continued

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11. Participial phrase (ing form) from predicate structure.
 a. We have a map. b. The man clearly shows this street.
 * have a map clearly showi this street.
- Participial phrase (ed form) from predicate structure.
 a. John was only injured slightly. b. John did not
 have to go to the hospital.
 Only injured slightly, John did not have to go to the
 hospital.
13. Gerund phrase from subject-predicate construction.
 a. We will see them soon. b. We look forward to that.
 We look forward to seeing them soon.
14. Infinitive phrase (adverbial) from subject-predicate
 construction.
 a. We understand English. b. It is easy for us.
 It is easy for us to understand English.
15. Infinitive phrase (adjectival) from subject-predicate
 construction.
 a. They do not live with their mother. b. It was their
 decision.
 It was their decision not to live with their mother.
16. Infinitive phrase (verb object) from subject-predicate
 construction.
 a. She bought a new car. b. Her sister persuaded her.
 Her sister persuaded her to buy a new car.
-

structures could adequately be tested with this number of items, allotting five or six to each structure.

Grammatical and Lexical Control

To limit the cause of students' errors to inability to handle the tested structures, grammatical and lexical content were controlled. Only three irregular verbs requiring manipulation were used in the examination: took to taken, came to to come, and bought to to buy. Three of the infinitives require no change of verb form--merely addition of to--while one item requires a change from the third person singular form.

Of the eight ing forms required in the participial and gerund constructions, four require change from the base form (presented as third person plural, future, and infinitive), and two require change from the third person singular. Only one requires change from the past tense.

One change is necessary from subject to object personal pronoun and one from subject to possessive pronoun. One noun must be changed to a participial adjective.

Pretest results indicated that these changes were within the ability of students classed as "low intermediate" and above.

Two hundred and ten different words were used in the 50 test items, counting irregular forms of verbs as separate words. All appear on the Thorndike-Lorge list of 30,000 most frequently used words,⁷ with 164, or 78%, appearing among the 1,000 most commonly used words and an additional 25, or 12%, with a high frequency of usage of 50 per million. Many of the remaining 21 words would be easily recognized by college students (e.g., bus, television, Spanish, football).

Test Results

The Test of Ability to Subordinate was administered to 148 non-native speakers and 153 native speakers to determine overall test reliability, information about the component items and structures, the diagnostic and screening values of the examination, and concurrent validity. The mean score for ESL students was 25.7. The median was 28; the range, 1-45; and the standard deviation 13.0. Native speakers had a range of 39-50, a mean of 45.3, a median of 46, and a standard deviation of 2.9.

The Kuder-Richardson Formula 20 was applied to the test results to determine the reliability of the examination, and the reliability coefficient for the TAS was computed at .95. This is regarded as representing a satisfactory level of reliability for a test with both diagnostic and placement functions.

The standard error of measurement of the TAS was computed at 2.9.

Analysis of Errors

A large percentage of errors on this test defy analysis because the examinees were free to write anything they thought appropriate. In many cases they merely repeated one of the original sentences, randomly selected one or two words from the sentences, or introduced irrelevant words, indicating that the students were incapable of handling the structures being tested. However, for most of the items, more than half of the responses were subject to analysis which indicated eight basic categories of difficulties: (1) omission of words and structures, (2) incorrect word forms and structures, (3) incorrect choice of words, (4) failure to delete or substitute, (5) use of inappropriate structures, (6) incor-

rect tense, (7) incorrect sequence of words, and (8) errors that demonstrate misunderstanding of the original sentences.

The most common error found among all nine structures was omission of words and complete structures. This error was noted among the adjective items, particularly those calling for two adjectives, and among the adverbs. On every prepositional phrase item, prepositions were omitted by a substantial number of examinees, indicating a lack of understanding of the preposition's functions especially in relation to the verb. A common error among the relative clause items was omission of the relative pronoun, an indication that many of the students did not have a grasp of that clause structure. Similar problems were seen in the noun and adverbial clauses where introductory and subordinate conjunctions as well as entire clauses were omitted. A problem similar to the one seen among the prepositional phrase items was found among the gerund questions where obligatory prepositions were omitted.

Incorrect word forms were used in the descriptive adjective items as well as with those adverbs requiring the ly suffix. Use of the present and past tenses rather than the past participle, and other errors showing no grasp of the participial form, were also noted. Another common error was use of the infinitive in place of the gerund form; and there were other errors showing inability to handle both infinitive and gerund phrases.

Incorrect word choices were made with prepositions introducing prepositional phrases and with subordinating conjunctions. Failure to delete or substitute words was noted primarily in the relative clause items where objects were not deleted and the relative pronoun not substituted for the original subject.

Structures were regarded as inappropriate if they involved coordination rather than subordination (found in prepositional phrase, relative clause, and gerund items) or if they changed meaning.

Tense problems were found in the noun clause constructions, particularly where sequence of tenses was required, and in a relative clause item.

Incorrect sequence of words was found in an item requiring two descriptive adjectives as well as in an item testing an adverb of manner.

Several items showed misunderstanding of the original sentences.

One major distinction to be made in terms of the errors is whether or not the student has some grasp of the transformational process involved. A student, for example, who responded to an item which calls for a relative clause ([that/who] we like) with that we like him may be demonstrating a more sophisticated understanding of this subordinating transformation (even though he failed to eliminate the

object pronoun) than the student who responded with a coordinating structure which might be grammatically "more correct."

With certain structures such as prenominal adjectives, the instructor would have to examine each incorrect response to see if the problem is the failure to make the required shift (e.g. to prenominal adjective position) or failure to make the correct change in word form (e.g. infection to infected).

Structure Difficulty

The difficulty of each of the structures was determined by finding the mean percent correct of the items for each structure. (See table 3.) Results tended to follow what would have been expected on the basis of the research, analysis of the writing samples, and survey of the texts. The more commonly used structures in the writing samples--adjectives, adverbs, and prepositional and infinitive phrases--were easier for the students than the noun and relative clauses. Adverbial clauses, which were used less frequently in the writing samples but were the most common structures found in the surveyed texts, were among the easier items, giving students less difficulty than the other two types of clauses. The less frequently used structures, participial and gerund phrases, were the most difficult.

The degree of difficulty in handling these structures would seem to reflect their frequency of use in writing at this level, the emphasis placed on them by educators, and the students' sophistication of language usage associated with more complex transformational processes.

TABLE 3
MEAN PERCENT CORRECT FOR EACH OF THE
NINE STRUCTURES OF SUBORDINATION

Structure	Percent
Prepositional Phrase	63.6
Prenominal Adjective	59.1
Infinitive Phrase	57.8
Adverbial Clause	57.8
Adverb	55.4
Noun Clause	48.6
Relative Clause	46.2
Participial Phrase	38.0
Gerund Phrase	31.8

Diagnostic Function

The Test of Ability to Subordinate was designed primarily as a diagnostic tool. In interpreting results, we can regard a student who correctly answered at least 80% of the items of a particular structure as proficient in the use of that structure. A student, therefore, who correctly answered at least 5 of 6 items (of the adjectives, adverbs, relative clauses, adverbial clauses, and infinitive phrases) and at least 4 of 5 items (of the prepositional, participial, and gerund phrases and the noun clauses) may be assumed to have mastery of those structures, although in some cases a review of particular forms might be in order.

A student who correctly answered two, one, or none of the items would need to be taught the use of that structure while correct answers for three, four, or five items might indicate the need for review, depending on the number of items tested for that structure and the particular transformations involved.

Individual test results indicated that the test has discriminatory value among the nine structures. Mastery of a particular structure (the prepositional phrase) was demonstrated by a student at the 16th percentile, while mastery of the most difficult structure in the test, the gerund phrase, was found at the 50th percentile and above. No student had mastery of all nine structures; mastery of eight was demonstrated at the 89th percentile and above, and students with mastery of at least five structures were found at the 54th percentile and above.

Concurrent Validity

To determine concurrent validity of the Test of Ability to Subordinate, ESL students who took the TAS were also given the Michigan Test and an expository writing exercise, and results were correlated.

A Pearson product moment correlation coefficient was calculated between scores for the TAS and the Michigan Test for the 148 students who took both examinations. The coefficient was .86. This comparison was made because the Michigan Test is one of the most widely used commercially available screening devices for non-native speakers, is used for placement purposes at several units of City University, and has been recommended as a University-wide placement instrument. The test consists of 40 grammar items, 40 vocabulary items, and 20 reading comprehension questions. A direct overlap between the two tests would occur from the similar skills being tested in the grammar section. Beyond that, John Carroll notes that both the grammar and reading subtests tend to measure general intellectual ability along with English proficiency.⁸ Both the grammar overlap and the "general ability" measurement inherent in both tests would account for the high correlation between the two. This correlation is comparable to one computed between the Michigan Test and the TOEFL reported at .89,⁹ further indicating the validity of the TAS.

To obtain reliable scores on the writing samples, I employed Dr. Fred I. Godshalk and Dr. Robert Jones of the Educational Testing Service to conduct a rating session in which seven college instructors of English as a Second Language scored the 148 compositions that were written. The "holistic" rating method developed

by Dr. Godshalk involves extensive orientation by the "Chief Reader" (in this case, Dr. Godshalk himself) in which a number of sample compositions taken from the group to be rated are read and scored by all the readers. Discussion ensues in which reasons for the various ratings are given and readers have the opportunity to see how their judgments compare to those of their co-readers. During the actual readings, "Table Leaders" spot check the ratings of those at their tables, telling readers when their judgments diverge from those of the leaders and other readers. The Chief Reader also spot checks and from time to time introduces new samples for further group evaluation and discussion. The method tends to bring about uniform judgments among readers and through twenty years of use has proven to be an effective method for achieving acceptable inter-reader reliability.¹⁰

All of the compositions not used as samples were rated individually by three readers. There was a high degree of rater agreement, with 19% of the papers having three identical scores and another 61% showing a one-point difference, indicating virtual agreement on 80% of the compositions.

A Pearson product moment correlation of .74 was determined between the scores on the 148 compositions and the TAS, and a coefficient of .69 was found between the composition and Michigan Test scores. The .74 correlation indicates that the TAS does measure significant components of "writing ability." In this regard, it is comparable to the Michigan Test and to reported correlations between the TOEFL and compositions (.74 for the Writing Ability subtest and .78 for the entire test).¹¹

Conclusion

The favorable results of the developed examination, in terms of its correlation with writing ability and its relative ease of administration and reliability of grading, indicates the feasibility of constructing valid objective tests which ask students to actively engage in writing sentences as well as in a cognitive process required in free writing. Similar examinations testing other elements of the composing process, along with the TAS, could serve not only as a good predictor of writing ability but as a diagnostic instrument for practical use by instructors.

Further, the results of the Test of Ability to Subordinate and its moderately high correlation with actual writing indicate that the nine structures of subordination identified in the study are indeed critical elements of overall writing ability. That the degree of difficulty encountered by the students in handling these structures seems to vary according to the structures' general frequency of use suggests several things. Ability to use certain structures may be dependent on the amount of contact one has with them in the language; this contact is both receptive--hearing the language spoken and reading it--and active, as one uses the structures in speaking and writing. There may also be a natural sequence of development of use of these structures for the second language learner as there appears to be for the native speaker. It would follow that teaching strategies might take into account such a sequence.

Recognition of the importance of these structures is particularly vital for the college instructor charged with the task of helping students develop writing skills to a level which will

enable them to take full advantage of higher education, perform those necessary writing functions associated with many professions and trades, and explore a more sophisticated means of self-expression.

The successful use of sentence combining in the TAS--that the technique can be used in test situations without cumbersome instructions to bring about production of desired structures--suggests that this technique may have a wider role in testing. It is also further evidence that production of certain transformations through sentence combining is indicative of the ability to perform these transformations during the normal writing process.

The implication for the ESL teacher (and for the instructor of native speakers who have not fully developed the ability to use certain transformations in writing) is to set about developing the transformational skills of students as a parallel to the ability that develops as native speakers learn to write in their own language.

Notes

1. J. F. Green, "Preparing an Advanced Composition Course," English Language Teaching 21 (January 1967): 142.
2. Nancy Arapoff, "Discover and Transform: A Method of Teaching Writing to Foreign Students," TESOL Quarterly 3 (December 1969): 298.
3. R. Braddock, R. Lloyd Jones, and L. Schoer, Research in Written Composition (Champaign, Ill.: National Council of Teachers of English, 1963), p. 10.
4. Ibid., p. 9; and I Dunlop, "Tests of Writing Ability in English as a Foreign Language," English Language Teaching 24 (October 1969): 55.
5. Braddock, Jones, and Schoer, Research in Written Composition, p. 40; and Francis A. Cartier, "Criterion-Referenced Testing of Language Skills," TESOL Quarterly 2 (March 1968): 31.
6. Green, "Preparing an Advanced Composition Course," p. 141.
7. Edward L. Thorndike and Irving Lorge, The Teacher's Word Book of 30,000 Words (New York: Bureau of Publications, Teachers College, Columbia University, 1944).

8. John B. Carroll, "Review of the Michigan Test of English Language Proficiency," in The Sixth Mental Measurements Yearbook, ed. Oscar K. Buros (Highland Park, N.J.: The Gryphon Press, 1966), pp. 639-40.

9. Oscar K. Buros, ed., The Seventh Mental Measurements Yearbook, p. 266.

10. Fred I. Godshalk, Frances Swineford, William E. Coffman, The Measurement of Writing Ability, CEEB Research Monograph, no. 6 (Princeton, N. J.: College Entrance Examination Board, 1966).

11. College Entrance Examination Board, Test of English as a Foreign Language, Interpretive Information (Princeton, N. J.: Educational Testing Service, 1970), p. 19.

LIST OF COLLEGE WRITING TEXTS SURVEYED FOR
STRUCTURES OF SUBORDINATION

- Abbott, Janet Stearn. The Whole Thing. Englewood Cliffs, N. J.: Prentice-Hall, 1974.
- Arapoff, Nancy. Writing Through Understanding. New York: Holt, Rinehart & Winston, 1970.
- Baker, William D. Reading and Writing Skills. New York: McGraw-Hill Book Co., 1971.
- Barnet, Sylvan, and Stubbs, Marcia. Practical Guide to Writing. Boston: Little, Brown & Co., 1975.
- Baskoff, Florence. Guided Composition. Philadelphia: The Center for Curriculum Development, 1971.
- Campbell, R. R. English Composition for Foreign Students. London: Longman Group, 1971.
- Canavan, Joseph P. Elements of College Writing and Reading. New York: McGraw-Hill Book Co., 1971.
- Casty, Alan. Building Writing Skills. New York: Harcourt Brace Jovanovich, 1971.
- Crosby, Harry H., and Estey, George F. College Writing. New York: Harper & Row, 1975.
- Day, James. An Advanced English Practice Course. London: Longmans, 1969.
- DiPippo, Albert E. From Sentence to Paragraph. Englewood Cliffs, N. J.: Prentice-Hall, 1966.
- Fawcett, Susan, and Sandberg, Alvin. Grassroots--The Writer's Workbook. Dubuque, Ia.: Kendall/Hunt Publishing Co., 1975.

- Fleming, Harold. English Grammar: Forms and Structures. San Francisco: Boyd & Fraser Publishing Co., 1971.
- Friend, Jewell A. Writing English as a Second Language. Glenview, Ill.: Scott, Foresman & Co., 1971.
- Gallo, Joseph D., and Rink, Henry W. Shaping College Writing. Harcourt, Brace & World, 1968.
- Gowen, James A. Progress in Writing. New York: McGraw-Hill Book Co., 1973.
- Hall, Eugene J. Building English Sentences. New York: Simon & Schuster, 1969.
- Hopper, Vincent F., and Gale, Cedric. Practice for Effective Writing. Woodbury, N. Y.: Barron's Educational Series, 1971.
- Kinsella, Paul. The Techniques of Writing. New York: Harcourt Brace Jovanovich, 1969.
- Kunz, Linda Ann. 26 Steps. New York: Language Innovations, 1972.
- Lawrence, Mary S. Writing as a Thinking Process. Ann Arbor: University of Michigan Press, 1972.
- Lipscomb, Delores H., et al. The Mature Student's Guide to Reading and Composition. Chicago: Aldine Publishing Co., 1975.
- Loewe, Ralph E. The Writing Clinic. Englewood Cliffs, N. J.: Prentice-Hall, 1973.
- McMahan, Elizabeth E. A Crash Course in Composition. New York: McGraw-Hill Book Co., 1973.
- Mills, Helen. Commanding Sentences. Glenview, Ill.: Scott, Foresman & Co., 1974.
- Paulston, Christina Bratt, and Dykstra, Gerald. Controlled Composition in English as a Second Language. New York: Regents Publishing Co., 1973.
- Rand, Earl. Constructing Sentences. New York: Holt, Rinehart & Winston, 1969.
- Roberts, Louise A. Write and Rewrite Your Sentences. New York: Harper & Row, 1975.

- Robinson, Lois. Guided Writing and Free Writing. New York: Harper & Row, 1967.
- Romine, Jack S. Sentence Variety. New York: Holt, Rinehart & Winston, 1970.
- Ross, Janet, and Doty, Gladys. Writing English. New York: Harper & Row, 1965.
- Seltzer, Sandra, and Kogen, Myra. Getting It Together: Refining Your Writing. New York: Harper & Row, 1974.
- Shaw, Harry. Writing and Rewriting. New York: Harper & Row, 1973.
- Stovall, Sidney T., et al. Composition: Skills and Models. Boston: Houghton Mifflin Co., 1973.
- Strong, William. Sentence Combining. New York: Random House, 1973.
- Taylor, Karl K. Stages in Writing. New York: McGraw-Hill Book Co., 1973.
- Waddell, Marie L.; Esch, Robert M.; and Walker, Roberta R. The Art of Styling Sentences. Woodbury, N. Y.: Barron's Educational Series, 1972.
- Whitten, Mary E. Creative Pattern Practice: A New Approach to Writing. New York: Harcourt, Brace & World, 1966.
- Willis, Hulon. Structure, Style, and Usage. New York: Holt, Rinehart & Winston, 1973.
- Wishon, George E., and Burks, Julia M. Let's Write English. New York: American Book Co., 1968.

SELECTED BIBLIOGRAPHY

- Bateman, Donald, and Zidonis, Frank. The Effect of a Study of Transformational Grammar on the Writing of Ninth and Tenth Graders. NCTE Research Report, no. 6. Urbana, Ill.: National Council of Teachers of English, 1966.
- Bellugi, Ursula, and Brown, Roger, eds. The Acquisition of Language. Monographs of the Society for Research in Child Development, vol. 29. Lafayette, Ind.: Child Development Publications, 1964.
- Chomsky, Carol. The Acquisition of Syntax in Children from 5 to 10. Research Monograph, no. 57. Cambridge, Mass.: M.I.T. Press, 1969.
- Christensen, Francis. "The Problem of Defining a Mature Style." English Journal 57 (April 1968):574-75.
- Diedrich, Paul B. Measuring Growth in English. Urbana, Ill.: National Council of Teachers of English, 1974.
- Dulay, Heidi C., and Burt, Marina K. "Errors and Strategies in Child Second Language Acquisition." TESOL Quarterly 8 (June 1974):129-36.
- Endicott, Anthony L. "A Proposed Scale for Syntactic Complexity." Research in the Teaching of English 7 (Spring 1973):5-12.
- Ervin-Tripp, Susan M. "Is Second Language Learning Like the First?" TESOL Quarterly 8 (June 1974):111-27.
- Hunt, Kellogg. "Do Sentences in the Second Language Grow Like Those in the First?" TESOL Quarterly 4 (September 1970):195-202.
- _____. Grammatical Structures Written at Three Grade Levels. NCTE Research Report, no. 3. Champaign, Ill.: National Council of Teachers of English, 1965.
- _____. "Recent Measures in Syntactic Development." Elementary English 43 (November 1966):732-39.
- Mellon, John C. Transformational Sentence Combining. NCTE Research Report, no. 10. Champaign, Ill.: National Council of Teachers of English, 1969.
- Menyuk, Paula. Sentences Children Use. Research Monograph, no. 52. Cambridge, Mass.: M.I.T. Press, 1969.
- O'Donnell, Ray C.; Griffin, William J.; and Norris, Raymond C. "A Transformational Analysis of Oral and Written Grammatical Structures in the Language of Children in Grades Three, Five, and Seven." Journal of Educational Research 61 (September 1967):35-39.

- O'Hare, Frank. Sentence Combining: Improving Student Writing Without Formal Grammar Instruction. NCTE Research Report, no. 15. Urbana, Ill.: National Council of Teachers of English, 1973.
- Ross, Janet. "A Transformational Approach to Teaching Composition." College Composition and Communication 22 (May 1971):179-84.
- Wardhaugh, Ronald. "Ability in Written Composition and Transformational Grammar." Journal of Educational Research 60 (May-June 1967):427-29.